## I claim:

- 1. A method for reading a digital watermark in a media signal comprising: assigning sets of media signal samples into classes; computing a statistical distribution of the classes; and using the statistical distribution to detect or read a watermark in the media signal.
- 2. The method of claim 1 wherein the media signal is an audio signal.
- 3. The method of claim 1 wherein the media signal is an image signal.

10

15

5

- 4. The method of claim 3 wherein the image samples are expressed in a frequency domain.
- 5. The method of claim 4 wherein the image samples are spatial frequency coefficients.
- 6. The method of claim 1 wherein the samples are in a spatial or temporal domain.

20

7. The method of claim 1 wherein using the statistical distribution includes: assigning a figure of merit to a sample indicating a likelihood that the sample includes a recoverable portion of a watermark signal; and using the figure of merit in a read operation.

25

8. The method of claim 7 wherein assigning a figure of merit includes assigning a weight to the sample indicating an extent to which the sample is likely to reflect valid watermark data.

9. The method of claim 1 wherein using the statistical distribution includes: assigning a figure of merit to a sample indicating a likelihood that the sample includes a recoverable portion of a watermark signal; and using the figure of merit in a watermark decoding operation.

5

10. The method of claim 9 wherein assigning a figure of merit includes assigning a weight to the sample indicating an extent to which the sample is likely to reflect valid watermark data.

10

11. A computer readable medium on which is stored software for performing the method of claim 1.

15

12. A method for reading a digital watermark in an image comprising: assigning transformed samples of the image into classes; modeling a statistical distribution of the samples in each of the classes; and using the statistical model to decode a watermark from the samples.

20

- 13. The method of claim 12 wherein signal activity of the samples is evaluated and the samples are assigned to the classes based on signal activity.
- 14. A computer readable medium on which is stored software for performing the method of claim 12.
- 15. A method for reading a digital watermark in a watermarked signalcomprising:

assigning sets of samples of the watermarked signal into classes; computing a statistical distribution of the samples in each of the sets; and using the statistical distribution to decode a watermark from the watermarked signal.

- 16. The method of claim 15 wherein the sets of samples are assigned to classes based on a signal characteristic of the samples in the sets.
- 17. The method of claim 16 wherein the signal characteristic is a measure ofsignal energy.
  - 18. A computer readable medium on which is stored software for performing the method of claim 15.
- 19. A method for estimating a watermark signal from a media signal suspected of containing the watermark signal, the method comprising:

assigning samples of the suspect signal into classes based on a signal characteristic of the samples;

modeling distributions of the classes; and

- estimating the watermark signal based on the suspect signal, the distributions of the classes, and a distribution of the watermark signal.
- 20. A computer readable medium on which is stored software for performing the method of claim 19.

15